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Patterns of growth changing in Inuit preschoolers

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Inuit preschoolers in Nunavut are as tall as their U.S. counterparts but they're also heavier, according to a new study published in the online edition of the *International Journal of Circumpolar Health*.

This represents a remarkable change from previous work showing Inuit infants began life with equivalent birth lengths, but were falling behind by the time they were six months old.

"This is in many ways a good news story," says Dr. Tracey Galloway, lead author and a Post-doctoral Fellow at the University of Toronto's Dalla Lana School of Public Health. "Height reflects overall health status over a lifetime and over generations."

Unlike weight, which can fluctuate quickly, it takes decades for changes in health to be reflected in the height of a population. Factors influencing height include nutrition of the child, maternal health and diet, and infectious disease rates.

However, says Galloway, it's impossible to know whether this trend will continue because school-aged children and youth have not been recently surveyed. The study of 26% of three to five year olds in 16 Nunavut communities marks the first time data on the height and weight of preschoolers has been collected for Inuit populations living in the North.

The data are from the International Polar Year Nunavut Inuit Child Health Survey led by McGill University, the University of Toronto and

territorial and community partners.

In Greenland, the height of Inuit youth begins to fall behind the general population in their early teens. And decades of work with Canadian adult Inuit populations consistently show they are shorter than adults in the general population.

"No current data exist for Canadian Inuit schoolchildren and youth. We don't have a snapshot. We don't know what the pattern of growth is over time," says Galloway.

Unfortunately, as well as gaining height, Inuit preschoolers are also gaining weight. The study, part of a larger International Polar Year Inuit Health Survey, showed that 51% of children measured were overweight, a number that surpasses preschoolers in Greenland, Canada and the U.S. The Canada-wide prevalence for overweight is 15 to 30% of preschoolers while in Greenland it's 21%.

Significantly more boys than girls were overweight, 57% compared to 45%, a trend that's markedly different from that found in Inuit adults in Alaska, Canada and Greenland, where 25% of women are obese compared to 16% of men.

Galloway was not surprised that preschoolers were showing high rates of overweight and obesity. "This is a global issue. Many countries are facing a similar rise in childhood obesity rates, especially in those areas facing rapid social and economic transitions."

Major changes in the North are impacting the availability of traditional "country" foods. Sea ice is melting earlier, freezing later, and can be more unstable, which makes hunting difficult. Caribou are becoming scare in some areas and migration routes are changing. Men are often working full time jobs and don't have the time to hunt, while the cost of

skidoos and gas make it a costly venture.

Inuit then rely more on store bought foods. When fruits and vegetables are available, they are often prohibitively expensive, leading to consumption of high calorie food and drinks. "Food security is a huge issue. Children are often hungry."

However Galloway urges caution in interpreting the study's obesity findings: "Little is known about the health risks of obesity in Inuit populations." The child survey and its related adult component offer an opportunity to learn more about the growth and health of Canadian Inuit.

Provided by Arctic Institute of North America